

CLAIMS

1. A method for sensing the context of an electronic device, the method comprising:
receiving contact information which represents a contact pattern acting on the device;
5 determining a contextual characteristic associated with the contact pattern;
determining a function operational in response to the contextual characteristic; and
executing the function.
2. The method of claim 1, further comprising the step of determining a contextual
10 characteristic of the device in relation to a foreign object in response to receiving
the contact information.
3. The method of claim 2, further comprising the step of determining a contextual
characteristic of the device in relation to a user.
- 15 4. The method of claim 1, wherein the step of receiving contact information further
comprises selectively receiving a plurality of signals from a plurality of touch
sensors which represent the contact pattern.
- 20 5. The method of claim 4, wherein the step of receiving contact information further
comprises selectively receiving a signal from a context sensors which senses the
proximity of a foreign object.
- 25 6. The method of claim 5, wherein the step of determining a contextual characteristic
further comprises receiving signals from a context sensor which is any one of an
infrared sensor, an ambient light sensor, a camera, a microphone, a radio
frequency signal sensor, radio system signal strength detection circuit.
- 30 7. The method of claim 6, further comprising the step of executing a function based on
the received signal from the context sensor and the contact information.

8. The method of claim 2, wherein the contextual characteristic is one of a plurality of predetermined configurations in which the device is held by the user.
- 5 9. The method of claim 1, executing a first function which corresponds to a first contact pattern and in response the device operating in a first operation mode.
10. The method of claim 9, adjusting a level of a user interface of the device to a first level in response to a first contact pattern and a first operation mode, and
- 10 adjusting the speaker to a second level in response to a second contact pattern and the first operation mode.
11. The method of claim 9, activating a first user interface in response to a first contact pattern and a first operation mode, and
- 15 deactivating the user interface in response to a second contact pattern and the first operation mode.
12. The method of claim 10, wherein the user interface is one of a display a speaker, haptic feedback device, a microphone, a camera, a keypad, or a touch screen.
- 20 13. The method of claim 7, wherein the user interface is one of a display a speaker, haptic feedback device, a microphone, a camera, a keypad, or a touch screen.
14. The method of claim 9, turning on a speaker phone in response to a first contact
- 25 pattern and a first operation mode, and turning on an earphone speaker in response to a second contact pattern and the first operation mode.

15. The method of claim 1, further comprising the step of determining a contextual characteristic of the device in relation to a foreign object in response to receiving the contact information.
- 5 16. The method of claim 2, further comprising the step of determining a contextual characteristic of the device in relation to a user.
17. The method of claim 1, wherein the step of receiving contact information further comprises selectively receiving a plurality of signals from a plurality of touch
10 sensors which represent the contact pattern.
18. A method for sensing the context of an electronic device, the method comprising:
receiving touch sensor information from at least a subset of touch sensors for a plurality
of touch sensors;
15 determining a contact pattern which corresponds to the subset of touch sensors;
receiving contextual information at the device;
determining the position of the device relative to a foreign object based on the contact
pattern;
determining a function operational in response to the position of the device and the and
20 the received contextual information; and
executing the function.
19. The method of claim 18, determining the position of the device relative to a user's
body.
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20. The method of claim 18, receiving touch sensor information from at least a subset of
touch sensors for a plurality of touch sensors that indicate that a user is holding
the device in a first gripping configuration.
- 30 21. A method in a wireless communication device comprising:

receiving a plurality of input signals from corresponding capacitive touch sensors carried on a housing of the wireless communication device;
determining a touch pattern corresponding to the plurality of input signals received from the capacitive touch sensors;
5 determining a relative position to a foreign object; and
activating an event in response to receiving the plurality of input signals and the motion input signal.

22. An electronic device comprising:

- 10 a housing;
a microprocessor;
a plurality of touch sensors carried on the housing an activatable from the exterior of the housing, wherein the location of each touch sensor of the plurality of touch sensors is configured to determine the position of foreign objects relative to the
15 housing; and
a context sensor module coupled to the microprocessor and receiving input from the plurality of touch sensors.

23. The device of claim 22, wherein a first touch sensor is on a first side of the device.

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24. The device of claim 23, wherein a second touch sensor is carried on a second side of the housing.

25. The device of claim 24, wherein the first side is a left, right, top, bottom, front or
25 back side of the device, and
wherein the second side is a left, right, top bottom, front or back side of the device.

26. The device of claim 25, wherein the touch sensor is a capacitive touch sensor.

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